

**STATEMENT OF
THE HONORABLE JESSE TANNER
MAYOR OF THE CITY OF RENTON
STATE OF WASHINGTON
BEFORE THE
U.S. SENATE COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION
SUBCOMMITTEE ON SURFACE TRANSPORTATION AND
MERCHANT MARINE
March 13, 2000**

Thank you Senator Gorton for the opportunity to provide testimony before you today. The citizens of Renton, Washington, have a special interest in the safety of hazardous liquid pipelines in that Renton serves as the headquarters of the Olympic Pipeline Company, and many miles of petroleum pipelines run through our city.

I have been invited to speak to you about our recommendations on options the Congress could consider to improve the transportation of hazardous liquids through pipelines in the context of the Committee's pipeline safety reauthorization legislation later this year. I am honored to do so, and I believe that our experience and history with this subject qualify us to present you with facts and perspectives that will be useful to you in your deliberations on the pipeline safety reauthorization legislation.

OLYMPIC PIPELINE COMPANY AND RENTON

In addition to having their headquarters in Renton, the Olympic Pipeline Company owns and operates a series of pipelines within the city. The parallel 16-inch and 20-inch lines that run north-south through the city were installed in 1965 and 1973 respectively. The joint capacity of these lines exceeds 14.7 million gallons of gasoline, diesel fuel and jet fuel per day. These large lines carry petroleum product to the Lind Avenue pump station in Renton, where fuel is pumped to Portland, Oregon through a 14-inch line installed in 1965, and to Harbor Island, Seattle and Seatac Airport through two 12-inch lines installed around 1970. The attached map shows the routing of these pipelines in Renton.

The 16-inch pipeline (which failed on June 10, 1999 in Bellingham) is made of .312-inch wall steel pipe, and the 20-inch line uses .25-inch pipe. These petroleum pipelines run through residential neighborhoods, past schools, and over Renton's drinking water supply aquifer along much of their length.

Olympic Pipeline's history in Renton is somewhat checkered. There have been two major fuel leaks. In early October 1986 an estimated 80,000 gallons of mixed gasoline, diesel and jet fuel

were discovered to have leaked into the Maplewood residential neighborhood. The fuel product was released gradually, perhaps over a period of weeks or months, at the location of a block valve. The leak was not detected by the Olympic Pipeline Company, but rather by citizens who noticed an iridescent plume spreading into the nearby Cedar River. The Cedar River, incidentally, is home to the largest sockeye salmon run in the lower 48 states. At about the same time, some residents of Maplewood noticed gasoline fumes in their basements, and the Renton Fire Department was called to the scene. Explosive levels of fuel vapors in basements caused five families to be evacuated from their homes for a week. Investigation determined that the fuel had contaminated a 1,500 foot-long plume eight to twenty-three feet underground. The presence of an impervious aquitard layer under the Cedar River caused the contaminant to be released into the Cedar River rather than percolating downward to contaminate Renton's drinking water supply. Olympic Pipeline Company provided an 18-month remediation program consisting of ground water pumping, floating petroleum recovery and soil vapor extraction. In 1998 the Washington State Health Department initiated a round of monitoring and testing at Maplewood which once more revealed elevated petroleum hydrocarbons in the ground water. These elevated readings turned out to be contaminants left over from the 1986 event rather than from a new leak. At that time the Olympic Pipeline Company indicated the intent to leave the petroleum product in the ground, but after the application of significant pressure by Renton, determined to remove the product by use of the air sparging process.

The second major fuel leak occurred on August 29, 1999. This spill took place at the Olympic Pipeline Company's Renton Lind Avenue headquarters as the result of a transfer pump that had broken leaking product onto the ground. Approximately 3,500 gallons of fuel escaped over an approximate 40-minute period before the leak was discovered by company employees. It was over an hour before the company contacted the Renton Fire Department.

In 1996-1997 the Olympic Pipeline Company conducted an internal "smart pig" test throughout their pipelines to determine the condition of these aging lines. Over 270 "anomalies" or flaws were found at that time. Although at least 15 of these flaws are located in Renton, and in spite of the fact that the Olympic Pipeline Company had entered into a legal agreement (franchise) to turn over all test results to the city, the City of Renton did not receive this information until October, 1999. Furthermore, the information was only received after repeated requests that included an ultimatum that we would terminate the franchise agreement and request that the pipelines be removed from Renton. Now that we have the test results, and have mapped the flaws, we have significant concerns about the safety of the pipelines. I will discuss these concerns later in this testimony.

RENTON'S CONCERNS

We are very aware of, and nervous about, the tragedy that occurred in Bellingham on June 10,

1999. We think that it is possible that such an event could happen again. In fact the evidence, and lack of regulatory oversight, tends to make us think that it is likely that such an incident will happen again, if not in Renton, elsewhere along the pipeline.

What is this evidence? First, I will speak of the general considerations. These are aging pipelines—some sections are up to 35 years old. They are high pressure and high volume lines, with a maximum operating pressure up to 1,400 pounds per square inch. The pipelines are metallic, and are therefore subject to corrosion. The product being carried consists of highly incendiary, explosive grades of refined petroleum. The pipelines run through residential neighborhoods and schoolyards, beneath environmentally sensitive areas, and across salmon-bearing streams. Oversight is provided by a severely understaffed and underfunded federal regulatory agency which, until recently, did not even have an inspector based in the state of Washington. The current federal regulations call for little or no mandatory pipeline or system testing, and do not provide means for assuring safety of the operation. There appears to be no requirement for public disclosure, little oversight on operator training, and no requirement for cooperation, or even communication, with local emergency response agencies. State and local governments are preempted from involvement in the regulation of this industry, and regulation is only minimally provided by the federal government. Even without more specific information, these ingredients seem to be a recipe for disaster.

However, we do have more specific information, and that information is chilling. The attached a map shows the route of these pipelines through the City of Renton. The blue and pink areas of the map depict Renton's drinking water aquifer protection areas. These areas occur over the top of our sole source potable water supply, so that any petroleum leaks in these areas could have catastrophic consequences to our drinking water. The green lines on the map represent the Olympic Pipeline petroleum pipes, the blue boxes are schools, and the 15 flaws are flagged out along the routes of the pipes. A key at the lower right hand corner of the map shows what the numeric information in the callouts means. Five of the pipeline flaw callout boxes are red—these indicate the more serious flaws (between 29% and 57% of metal loss in the pipeline wall!). Metal loss indicates the percentage of metal that is missing in the pipeline wall. The most serious pipeline flaw in the City, with 57% metal loss, is located within 300 feet of Talbot Hill Elementary School. Two pipeline flaws with roughly 50% metal loss are located over our drinking water supply. Most of these pipeline flaws are in heavily populated residential neighborhoods.

Back in 1996-1997 when the Olympic Pipeline Company acquired this information through “smart pigging”, they were not sufficiently concerned to perform any further investigation. They did not provide this information to local government, to school districts, or to residents. It remains the Olympic Pipeline Company's position today that no further action needs to be taken to address these pipeline flaws. They cite the governing standards, ASME B31.4, as allowing corrosion pitting of the pipeline wall up to 80% loss of wall thickness before replacement is required. However, paragraph 451.6.2(a)(1) of this standard states that gouges and grooves having a depth greater than 12½% of the nominal wall thickness shall be removed or repaired.

How does Olympic

Pipeline Company know, without visual inspection, whether the areas of metal loss are due to corrosion or to gouges or grooves? And even if the metal loss were due to corrosion, the ASME B31 *Supplemental Manual for Determining the Remaining Strength of Corroded Pipelines* states, “in all cases where the corroded region is to be left in service, measures should be taken to arrest further corrosion. Such measures should include coating the corroded region and, if indicated, increasing the cathodic protection level”. To our knowledge, the Olympic Pipeline Company has not ascertained the cause of the pipeline flaws in Renton, has not taken measures to arrest further corrosion, nor has the Office of Pipeline Safety required that this information be ascertained or that any remedial measures be taken.

There is only one way that we are aware of to assure that these aging, pitted pipelines can sustain the required test pressure without failing, and that is to hydrostatically pressure test the pipelines. The Olympic Pipeline Company refuses to do this, and unaccountably, the Office of Pipeline Safety has declined to force them to do so through a Corrective Action Order. The Olympic Pipeline Company proposes to undertake another “smart pig” internal inspection of the pipelines instead. Renton takes no issue with performing another round of internal testing. However, the results of such testing cannot be correlated to pipeline strength. Until a test is undertaken that can demonstrate the current strength of the pipeline, no one can say what pressure or operating conditions the pipeline will support. This can only be determined by a hydrostatic pressure test.

One of the objections that the Olympic Pipeline Company has raised regarding hydrostatic pressure testing of the pipelines is the potential that such testing could damage the pipelines. However, the company to our knowledge has not presented scientific evidence to support this claim. Hydrostatic pressure testing of pipelines is a standard test procedure that has been in use for decades to demonstrate that pipelines are capable of sustaining their rated test pressures. If performed correctly, such testing should not result in damage to sound portions of the pipeline. It is true that weakened portions of the pipeline could fail, as was the case with the hydrostatic testing in Bellingham. This is the very purpose of the test: to identify weakened, dangerous portions of the pipeline so that these sections can be replaced to prevent future catastrophes such as happened in Bellingham. Our question for the Olympic Pipeline Company is: if you are so worried about test pressures damaging the pipelines when the pipe is carrying water, why do you not appear to be worried about transient surge pressures that also exceed the operating pressure causing damage when the pipe is carrying petroleum products?

I would like to mention one other issue concerning strength of pipelines. The Office of Pipeline Safety’s current Corrective Action Orders require hydrostatic testing only for sections of the Olympic Pipeline that are low frequency electric resistance welded (ERW) pipe. These sections occur mainly in Whatcom County, in the Bellingham area. However, Congressman Jay Inslee has investigated the failure history of high frequency and low frequency ERW pipe. He has found information from the Office of Pipeline Safety web site archives that compares the number of failures of electric-resistance longitudinal welded pipes manufactured by U.S. Steel

Corporation, and pipe manufactured by Lone Star Steel from 1970 to mid 1984 on gas pipelines. This information seems to contradict the assertion that U.S. Steel does not have a seam failure history for high-frequency ERW manufactured pipe. It is my understanding that the majority of the pipeline is made of U.S. Steel and other brands of high-frequency ERW manufactured pipe. A table showing Congressman Inslee's findings is attached. This information calls into question the Office of Pipeline Safety's distinction between the reliability of Lonestar and U.S. Steel pipe, and supports the argument that the entire pipeline should be hydrostatically tested.

Renton is also concerned about leak detection. Currently the Olympic Pipeline Company detects leaks by internal pressure loss. As demonstrated by the Renton Maplewood leak, more gradual leaks, that can also be devastating to safety and the environment, cannot be detected by the Olympic Pipeline Company's current technology. We feel that the Federal regulations should require improved leak detection technology, particularly in population centers and sensitive areas.

RENTON'S RECOMMENDATIONS

The City of Renton supports both the Pipeline Safety Act of 2000 (S.2004) and the Safe Pipelines Act of 2000 (H.R.3558). We particularly support the provision of H.R.3558 that requires hydrostatic testing of all facilities once every 5 years, and the provision of S.2004 requiring the use of equipment to detect and locate leaks. We support improved certification and testing of operators, improved corrosion testing, better notification of spills (particularly of the local agencies which are charged with providing emergency response), and delegation of authority to states. Providing additional funding to the Office of Pipeline Safety also seems like a sound provision. This agency does not appear to us to be equipped to handle the challenges of regulating petroleum pipeline safety in the face of growing distribution systems and aging infrastructure. Providing additional funding to this agency would seem to be particularly essential if more regulatory authority is not delegated to the states.

Finally, I would like to take this opportunity to make an appeal to you to take a step that would help the citizens of Renton and others living along the route of the pipelines sleep better at night. This appeal is to contact Kelley Coyner, Administrator of the Office of Pipeline Safety, and request that a Corrective Action Order be issued to the Olympic Pipeline Company requiring hydrostatic testing of the entire length of their pipelines. By influencing the Office of Pipeline Safety to do so, defective sections of the pipeline could be detected and repaired in the near term, which would significantly reduce the risk of catastrophic failure over the next several years.

Once again, I wish to thank you for inviting me to participate in a process that could provide much needed protection to the citizens of Renton as well as to other residents throughout the country whose proximity to hazardous liquid pipelines exposes them to risks that are not

currently sufficiently regulated.